XI. OVERVIEW OF INVESTMENT AND RESOURCE ALLOCATION

The benefits of investment in vaccine development and immunization accrue across the whole of society, and even across political borders. Vaccinated individuals benefit directly, unvaccinated individuals benefit from reduced transmission of diseases in the community, and all people benefit from reduced costs to society for medical care.

THE BENEFIT/COST OF IMMUNIZATION

Many studies have analyzed the benefits and costs of childhood immunization based on the vaccines recommended for routine use in the United States (see appendix 6). For example, the benefit/cost ratios of the measles, mumps, and rubella vaccines (whether the vaccines are administered individually or in combination) have been documented repeatedly (table 4; see also appendix 11). These studies show that immunization not only yields considerable disease-reduction benefits, but also reduces the need for rehabilitation and other medical services and offers substantial economic benefit in the form of savings in costs that would have been incurred had the disease and its complications not been prevented.

Table 4: Benefit/cost ratios of immunization for measles, mumps, and rubella

Measles	Rubella	Mumps	Combined (MMR)
11.9 to 1	7.7 to 1	6.7 to 1	14.4 to 1

Source: White, Koplan, and Orenstein, 1985.

Immunization of adults is also cost-effective. Influenza and pneumococcal vaccination of the elderly are cost saving because the cost of vaccinating elderly persons is less than the cost of providing medical care, such as hospitalization, to those who would otherwise develop influenza or pneumonia (National Vaccine Advisory Committee, 1994b).

On a global scale the benefit/cost of immunization and the priority it should be given among public health interventions has been recently highlighted in the World Bank's "World Development Report --1993: Investing in Health" (World Bank, 1993). U.S. contributions to global immunization efforts can have monetary as well as health benefits. For example, the United States' expenditure of $84 million on global smallpox eradication between 1967 and 1977 has resulted in a cost savings of $150 million a year for the U.S. taxpayers, because domestic control measures could be discontinued.

INVESTMENTS IN THE NATIONAL VACCINE PLAN

The National Vaccine Plan's specific goals, objectives, and strategies are identified; they are realistic and achievable. Many of the activities through which the strategies will be implemented will not require new funding, and some will be achievable with only very little additional funding. A few, however, will require substantial new funding that will be considered for future Presidential budget requests. FY 1994 congressional appropriations make possible revitalization of our national efforts through the President's Childhood